

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A method of automatically determining a need to service a digital image acquisition system including a digital camera with a lens assembly and electronic sensor array, comprising:

(a) determining a probability that pixels within one or more acquired digital images correspond to dust ~~blemish~~ artifacts;

(b) generating a master dust map describing physical manifestations of dust on the electronic sensor array based on the determining;

(c) calculating a transformation of the master dust map to generate a manifestation of the master dust map that includes information describing dust location and appearance as a function of one or more optical parameters including exit pupil dimension of the lens assembly or distance of dust from a surface of the electronic sensor array that corresponds to a focal plane of the lens assembly, or both;

~~(b)-~~ (d) analyzing pixels within one or more further acquired digital images and updating the master dust map or the manifestation of said master dust map, or both, in accordance with the analyzing;

(c) ~~according to the probability determinations to determine~~ determining based on the updating whether a threshold distribution of dust ~~blemish~~ artifacts is present within said one or more further acquired ~~of said~~ digital images; and

~~(e)~~ (e) indicating a need for service when at least said threshold distribution is determined to be present.

2. (Original) The method of claim 1, wherein said one or more acquired images comprise one or more calibration images.

3. (Original) The method of claim 1, said threshold distribution being determined based upon an analysis of the ability of an automatic blemish correction module of said digital image acquisition system to reasonably correct such blemishes within said images.

4-6. (Cancelled)

7. (Previously Presented) The method of claim 1 wherein said one or more acquired images are acquired with specific acquisition setting comprising one or more of aperture, shutter speed, sensitivity, and subject matter.

8. (Original) The method of claim 7, wherein said specific acquisition settings are automatically determined in a specific calibration mode on said digital image acquisition system.

9. (Original) The method of claim 1, wherein said analyzing is based on defined time interval since last said analyzing.

10. (Original) The method of claim 1, wherein said analyzing is based on defined in relations with change of lenses.

11-42. (Cancelled)